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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Steven W. Keck

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EXAMINER

NGUYEN, STEVEN H D

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/775,860	<b>Applicant(s)</b> KECK ET AL.	
	<b>Examiner</b> Steven HD Nguyen	<b>Art Unit</b> 2665	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 December 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13, 15-27, 29-41 and 43-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15-27, 29-41 and 43-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This action is in response to the amendment filed on 12/31/04. Claims 14, 28 and 42 have been canceled and claims 1-13, 15-27, 29-41 and 43-45 are pending in the application.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-12, 15-26, 29-40 and 43-44 are rejected under 35 U.S.C. 102(b) as being anticipated by Robinson (USP 5544222).

Regarding claims 1, 15 and 29, Robinson discloses a method and system for controlling the flow of data in a base transceiver station (Figs 3 or 4) comprising providing first and second upstream devices (Fig 4, Ref 44 and 44'); providing a downstream device (Fig 4, Ref 45s) including a backplane interface (Fig 4, Ref 42) wherein the backplane interface is independently coupled to each of the first and second upstream devices (Fig 4, Ref 44 and 44' "upstream devices" are independently coupled to the backplane interface of transceiver 45 via backplane 42 bus); and enabling simultaneous communication between the downstream device and the first and second upstream devices via the backplane interface (Col. 18, lines 16-21).

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Regarding claims 2, 16 and 30, Robinson discloses the first and second upstream devices each comprise a base transceiver station manager (Fig 4, Ref 44 and 44' and Fig 8 and col. 19, lines 22-54, Ref 803).

Regarding claims 3, 17 and 31, Robinson discloses the downstream device comprises multiple independent downstream devices (Fig 4, Ref 45s).

Regarding claims 4, 18 and 32, Robinson discloses each independent downstream device comprises a channel module (Fig 4, Ref 45s).

Regarding claims 5, 19 and 33, Robinson discloses the first and second base transceiver station managers include redundancy capabilities (Fig 4, Ref 44s and col. 19, line 15-21).

Regarding claims 6, 20, and 34, Robinson discloses the back plane interface is independently coupled to each base transceiver station manager (Fig 4, Ref 42).

Regarding claims 7, 21 and 35, Robinson discloses the back plane interface transmits and receives data to and from the first and second base transceiver station managers simultaneously via independent data paths (Fig 4, Ref 42).

Regarding claims 8, 22 and 36, Robinson discloses the back plane interface comprises a clock reference selection circuit and a data path multiplexor (Fig 4, Ref 42 and col. 18, lines 16-41, multiplexing the data from the ref 45s onto the bus).

Regarding claims 9, 23 and 37, Robinson discloses the clock reference selection circuit is utilized to immediately switch to the first or second base transceiver station manager upon detection of a failure of the first or second base transceiver station manager (Fig 4, Ref 42 and col. 18, lines 16-41).

Regarding claims 10, 24 and 38, Robinson discloses the back plane interface further comprises a data path de-multiplexor (Fig 4, Ref 42 and col. 18, lines 16-41, demultiplexing the data from ref 44 to the ref 45s).

Regarding claims 11, 25 and 39, Robinson discloses the data comprises a data frame structure (col. 22, lines 7-26).

Regarding claims 12, 26, 40 and 43, Robinson discloses the data frame structure comprises a frame sync portion (col. 22, lines 7-26, Flag), a provisioning information portion (col. 22, lines 7-26, address), a control portion (col. 22, lines 7-26, control) and a payload portion (col. 22, lines 7-26, information) wherein the data frame structure facilitates a simultaneous bidirection flow of data between the downstream and first and second upstream device which the devices are independently coupled via a backplane interface (Fig 4, Ref 44 and 44' and 45 are independently coupled to the backplane).

Regarding claim 44, Robinson discloses the data frame structure is in a table format (col. 22, lines 7-26).

4. Claims 1-7, 15-21 and 29-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Atkinson (USP 4694484).

Regarding claims 1-7, 15-21 and 29-36, Atkinson discloses a method and system for controlling the flow of data in a base transceiver station (Fig 19) comprising providing first and second upstream devices (Fig 14, 1402, 1404 or Fig 19, BSCs) each comprise a base transceiver station manager (Fig 14, 1404 and 1408) including redundancy capabilities; providing a downstream device (Fig 14, Ref 1102-1104) including a backplane interface (Fig 4, the bus couple between the transceivers, 1102 and 1104 and VCCs, 1404 and 1408) wherein the

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backplane interface is independently coupled to each of the first and second upstream devices comprises multiple independent downstream devices (Fig 14, Ref 1002-1104) and comprises a channel module (Fig 14, Ref 1102) comprises a back plane interface (Fig 19, col. 53-66) wherein the back plane interface is independently coupled to each base transceiver station manager (Fig 14, back plane buses is coupled to Ref 1108), transmits and receives data to and from the first and second base transceiver station managers simultaneously via independent data paths and enabling simultaneous communication between the downstream device and the first and second upstream devices (Fig 14 and col. 10, lines 12-34 and line 67 to col. 11, lines 5) and multiplexer and demultiplexer for establishing a communication between the transceivers and upstream devices (Fig 14).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 13, 27, 41 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson (USP 5544222).

Regarding claims 13, 27, 41 and 45, Robinson discloses the data frame structure is in a table format (col. 22, lines 7-26). However, Robinson fails to disclose the table format comprises seven columns and ten rows. However, it would have been obvious to one of ordinary skill in the art at the time of invention was made to implement a data frame structure with ten rows and seven columns instead of one row and plurality of columns. The motivation would have been to improve the throughput of the base station.

8. Claims 8-13, 22-27, 36-41 and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atkinson (USP 4694484) in view of Robinson (USP 5544222).

Regarding claims 8-12, 22-26, 36-40 and 43-44, Atkinson fail to fully disclose the claimed invention. However, in the same field of endeavor, Robinson discloses (Figs 1-10 and col. 1, line 10 to col. 28, line 24) a clock reference selection circuit and a data path multiplexor (Fig 4, Ref 42 and col. 18, lines 16-41, multiplexing the data from the ref 45s onto the bus); the back plane interface comprises a clock reference selection circuit and a data path multiplexor (Fig 4, Ref 42 and col. 18, lines 16-41, multiplexing the data from the ref 45s onto the bus; the clock reference selection circuit is utilized to immediately switch to the first or second base transceiver station manager upon detection of a failure of the first or second base transceiver station manager (Fig 4, Ref 42 and col. 18, lines 16-41); de-multiplexor (Fig 4, Ref 42 and col. 18, lines 16-41, demultiplexing the data from ref 44 to the ref 45s); the data comprises a data

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frame structure (col. 22, lines 7-26); the data frame structure comprises a frame sync portion (col. 22, lines 7-26, Flag), a provisioning information portion (col. 22, lines 7-26, address), a control portion (col. 22, lines 7-26, control) and a payload portion (col. 22, lines 7-26, information); the data frame structure is in a table format (col. 22, lines 7-26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a clock circuit to activate the redundant manager device as disclosed by Robinson into Atkinson's method and system. The motivation would have been to reduce the down time.

Regarding claims 13, 27, 41 and 45, Robinson discloses the data frame structure is in a table format (col. 22, lines 7-26). However, Robinson fails to disclose the table format comprises seven columns and ten rows. However, it would have been obvious to one of ordinary skill in the art at the time of invention was made to implement a data frame structure with ten rows and seven columns instead of one row and plurality of columns. The motivation would have been to improve the throughput of the base station.

### ***Response to Arguments***

9. Applicant's arguments filed 12/31/04 have been fully considered but they are not persuasive.

In response to pages 11-12, the applicant states that Atkinson fails to disclose a base transceiver comprising a first and a second upstream device coupled with a downstream device that enable simultaneous communication with each of the first and second upstream devices. In reply, Atkinson discloses a base transceiver station (Fig 19 or Fig 14) comprising a first and a



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second upstream device (Fig 19, Ref BSCs or Fig 4, Ref 1404 and 1402 and Ref 1402 and 1408 with dash line) coupled with a downstream device (Fig 19, TR1 or Fig 14, Ref 1102) that enable simultaneous communication with each of the first and second upstream devices (See col. 10, lines 17-26 and line 67 to col. 11, lines 1-5, the transceiver “downstream device” communicates with both VCCs “upstream devices”).

In response to pages 13-14, the applicant states that a table format with ten rows and seven columns is not obvious to one of ordinary skill in the art at the time of invention was made. In reply, a table format with ten rows and seven columns is easily to create based on the structure for example a frame in SONET is contain a table format of 90 column and 9 rows; Castellano (USP 6674750) discloses a super frame includes a plurality of frames “rows” wherein each frame includes seven slots “column”, 6 frames with each frame divided into 8 time slots (Fig 6); Dupuy (USP 5642361) discloses a frame is represented by the columns and rows (Col. 1, lines 42), the packet conveyed in the frames of 16 columns and 20 rows (Col. 3, lines 27-32); Van de pol (USP 5983365) discloses frames are represented by 12 columns and 9 rows; Birch (USP 5583562) discloses frame including columns and rows which is limited to the bandwidth of a transmission channel (col. 10, lines 49-56). Since, it is well known in the art that a frame, which contains the columns and rows, bases on the limited bandwidth of the channel. Therefore, it would have been obvious to one of ordinary skill in the art to establish a frame including ten rows and seven columns. Furthermore, the references disclose the claimed invention except for structure of frame. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the structure of frame such rearranging the columns and rows;

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since it has been held that the provision of adjustability, where needed, involves only routine skill in the art. *In re Stevens*, 101 USPQ 284 (CCPA 1954).

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (571) 272-3159. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steven HD Nguyen  
Primary Examiner  
Art Unit 2665  
5/10/05